Andreas Vesalius
De Humani Corporis Fabrica

Basel, 1543

Andreas Vesalius' *De Humani Corporis Fabrica* (On the fabric of the human body) is arguably the best-known book in the history of western medicine. Published in 1543, at the height of the Renaissance, it is an exhaustive visual atlas and verbal description of human anatomy based in part on the author's own dissections; its massive Latin text of over 700 folio pages contains extensive descriptions of the tools and techniques of dissection, as well as of the structures of the human body those tools and techniques reveal. The whole is illustrated by a remarkable series of woodcuts from the circle of Titian. A book of great intellectual complexity and physical beauty, it was also a work of daring, reflecting Vesalius' youthful ambition – he was only twenty-eight when he completed it – and his desire to use the new technology of printing and the most progressive artistic conventions of the period to push the edges not only of contemporary anatomical knowledge but also of contemporary attitudes toward the human body.

When Vesalius began work on *De Fabrica*, in 1538 or 1539, he was a lecturer on anatomy – a rather junior position – at

the University of Padua, the official university of the Venetian territories. A native of Brussels, in the Low Countries, he had read medicine at Paris and Louvain, but chose to finish his studies at Padua, which was reputed to offer the best medical training in Europe; he received his doctorate in 1537 and was immediately offered a lectureship in anatomy and surgery. In that capacity, he undertook a series of public dissections – ceremonial events that demonstrated the structures of the human body to medical students and other viewers – in which he developed a number of new pedagogical techniques. These would bear eventual fruit in *De Fabrica*.

Vesalius' use of human dissection to supplement and illustrate the anatomical knowledge in standard texts was not itself a novelty. Contrary to the often-repeated historical myth, dissection was at no time illegal in Italy, in the eyes of either Church or state, though graverobbing and other extra-legal ways of obtaining cadavers were of course prosecuted as crimes. Pope Boniface VIII had issued an edict in 1299 condemning the dismemberment and boiling of corpses to extract the bones – a common funerary practice among crusaders and others who died far from their chosen place of burial – but this was not aimed at anatomical dissection; its principal effect on Italian anatomists was to force them to find other ways besides boiling to prepare skeletons and to create difficulties in studying a few small structures, such as the bones in the ear. Indeed, anatomy had long been considered a fundamental part of medical learning, and dissection had been part of the training of Italian medical students from at least the early fourteenth century. (Northern European universities were much slower to adopt the practice.) Indeed, well into the sixteenth century the textbook most commonly used to teach anatomy was one composed in 1316 by Mondino de' Liuzzi, professor of anatomy at the University of Bologna, who wrote it to accompany the dissection of the human body. The intervening years had enshrined Mondino's authority; when Vesalius began his medical studies, Mondino's *Anatomy* was still being read by medical faculties throughout Europe, circulating in a number of late fifteenth- and early sixteenth-century editions.

On assuming the chair of anatomy at Padua, Vesalius seems immediately to have introduced various pedagogical innovations. He performed his own public dissections, rather than leaving them to a barber or surgeon, as was often the practice; and he performed them regularly, supplementing them with frequent private dissections, which allowed more advanced students to study the structures of the body and its variations in greater detail. He used the bodies of dogs and other animals to construct lessons in comparative anatomy. Furthermore, he understood that it was difficult for novices to see and assimilate large and complex structures like the vascular system in the course of a single dissection, and he prepared a number of large charts to facilitate this, which he displayed and discussed as he dissected the cadaver. This particular innovation proved so successful that he published six annotated charts of this sort, three of the venous and arterial systems and three of the skeleton (the latter by the artist Jan Stephan van Calcar); this book came out under the title *Six Anatomical Tables* in 1538.

But Vesalius saw dissections as only one source of anatomical knowledge. Like most of his learned contemporaries, he

believed that the truth about the natural world was to be found primarily in the works of ancient authors – in the case of medicine and the workings of the human body, the prolific second-century Greek writer Galen. Galen's great anatomy text, *On Anatomical Procedures*, lost to the Middle Ages, had been newly rediscovered; Vesalius' own teacher at the University of Paris, Johann Guinter of Andernach, had recently published a Latin translation of this work, which Vesalius revised and brought out a year after his *Six Anatomical Tables*, in 1539. Vesalius clearly intended to use Galen's work as his primary teaching text in place of the *Anatomy* of Mondino, which he considered hopelessly obsolete.

The discipline of anatomy had developed rapidly over the previous half-century, after a long period of stagnation, and Vesalius shared many of the assumptions and commitments of other progressive anatomists of his day. Like his teacher Guinter, he was strongly influenced by the revival of classical culture under the auspices of the intellectual movement known as humanism, and he revered the authority of Greek writers such as Galen, whom he considered immeasurably superior to the medical authors of the Latin and Arabic Middle Ages. At the same time, he did not grant Galen the last word. Like several Italian anatomists of the preceding generation – most notably Jacopo Berengario of Carpi at the University of Bologna and Niccolò Massa, who practiced medicine in Venice – he saw his discipline as a work in progress: Galen's findings were to be refined and revised in the light of more recent research, although Vesalius clearly did not expect these to alter the overall shape of Galenic thought. Indeed, his *Six Anatomical Tables* included revisions of this sort, lodged in a frame of solidly Galenic physiology, and he defended Galen's position concerning bloodletting in a short work in 1539.

It was at this point that Vesalius began intensive work on a much more ambitious book, which was to become *De Fabrica*. He envisaged this book as a unique contribution to scholarship: unlike the works of Mondino and more recent Italian anatomists, which were confined for the most part to relatively brief descriptions – particularly where the bones and muscles were concerned – it was to treat the parts of the body in significant detail. In this respect *De Fabrica* was to resemble but to expand on and outdo Galen's *Anatomical Procedures*, much as Copernicus' *On the Revolutions of the Heavenly Spheres*, published in the same year, resembled but revised the Greek astronomer Ptolemy's *Almagest*. Thus Vesalius modeled the organization of his book on the *Anatomical Procedures,* using Galen's recommended sequence of anatomical demonstration: Book I treated the bones of the body, Book II the muscles, Book III the veins, Book IV the arteries, Book V the organs of the abdomen, Book VI the organs of the thorax, and Book VII the organs of the head. While retaining a highly reverential attitude toward ancient Greek medicine, however, Vesalius engaged in a more pointed dialogue with Galen than in any of his previous works. Not only did he point out many significant errors made by the Greek writer, but he repeatedly stressed their source: Galen's lack of access to human cadavers and his reliance on the bodies of animals, most notably those of apes. As Vesalius noted in his preface, Galen "never dissected a human body, but deceived by his monkeys…he frequently and improperly opposed the ancient physicians trained in human dissection." (The "ancient physicians" were pre-Galenic writers

such as Herophilos of Alexandria, who had worked from human cadavers but whose works had been lost long before the sixteenth century.)

To a modern reader, however, the most striking and original aspect of *De Fabrica* is neither its extensive descriptions nor its critiques of Galen, but its heavy reliance on images. The practice of illustrating anatomical texts was not new; some medieval medical manuscripts contain hand-drawn or painted diagrams of the human body and portrayals of dissection scenes. But medieval anatomical images were rarely taken from direct observation, and were relatively unusual, even after the invention and diffusion of printing in the second half of the fifteenth century, which permitted the use of woodcuts; these both reduced the cost of book illustration and allowed the accurate reproduction of images. Mondino's editions were unillustrated, or decorated with a single dissection scene, while most of the editions of Galen, like most of the works of Vesalius' immediate predecessors in the field of anatomy, had no illustrations at all. The principal exceptions were Berengario's two anatomical treatises, published in the 1520s, which contained a series of woodcuts showing the structure of the superficial muscles, the skeleton, and several internal organs such as the uterus. (Beginning with Berengario, the female body and, in particular, the female genitals were to become a favorite subject of anatomical illustration, no doubt because they had a special appeal in the eyes of the overwhelmingly male audience for books of this sort.)

Vesalius followed Berengario in this matter, devoting his majestic title page to a demonstration of the uterus, but the images of *De Fabrica* outdid Berengario's in every respect. Based on the meticulous observation of dissected cadavers,

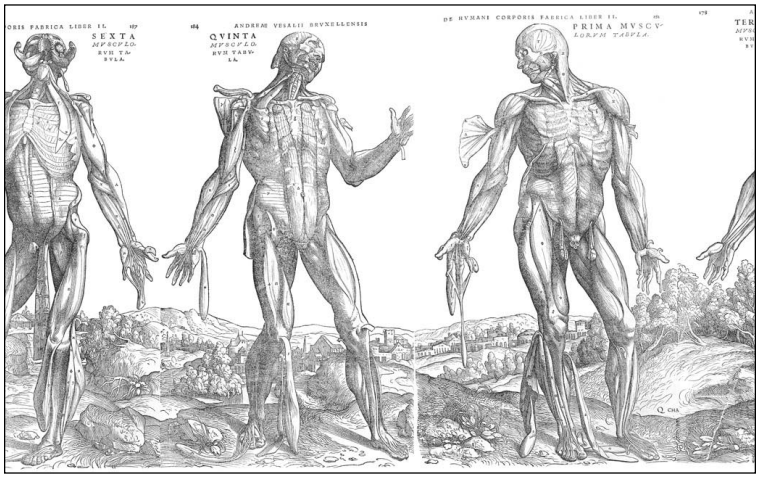

Tableau of "muscle men" from Book II. *Click here to view entire image.*

they were much more detailed, and there were many more of them, illustrating every aspect of Vesalius' discussion. Vesalius married them much more clearly to his text, using an elaborate system of captions, cross references, and marginal annotations, which made them integral to his presentation. Furthermore, the illustrations were not the serviceable but rather primitive images found in Berengario's book, but works of art in their own right; even the simplest far exceeded all previous anatomical images in clarity and detail (with the exception of some of the unpublished anatomical drawings of Leonardo da Vinci), and the more elaborate were extraordinary for their beauty and imaginativeness of conception. The latter included the skeletal figures in Book I, arranged in poses of meditation and mourning; the progressively dismantled "muscle men" of Book II, set in a continuous pastoral landscape modeled on the environs of Padua; and the remarkable images of Book V, which depicted its dissected torsos as fragments of ancient statues, playing the hardness and brittleness

of stone against the softness and corruptibility of human flesh. The same kind of contrast characterized the decorative initials that began each chapter and each book: depicting comic scenes – comic by sixteenth-century standards – in which small putti obtain and prepare anatomical material, or perform common surgical procedures, they stood in piquant counterpoint to the sobriety and seriousness of the principal illustrations.

As both the size of *De Fabrica* and the quality of its images indicate, it was not aimed primarily at students, who would have found it impossibly expensive and far more detailed than they required for their exams. Rather, as he noted in his preface, Vesalius envisaged an audience of "learned men" – classical scholars and, especially, practicing physicians – who lacked the skills to do their own dissections as well as access to cadavers, and who would welcome his work both for its practical utility and its contribution to anatomy as an intellectual discipline. Yet Vesalius did not write off the student market: simultaneously with *De Fabrica*, he prepared a much shorter *Epitome*, illustrated by a smaller number of nonetheless striking woodcuts, which appeared in the same year in both Latin and German.

Given the prominence and quality of *De Fabrica* illustrations, it is striking that Vesalius nowhere credited the artist or artists who produced them – a fact that has inspired a large scholarly literature dedicated to advancing or discrediting the claims of various candidates. The leading contender is Jan Stephan van Calcar, a Netherlandish artist who worked in the studio of Titian in Venice. Calcar produced the skeletal images in the *Six Anatomical Tables* and paid for the print run of this book, and he is the only artist Vesalius ever referred to by name (in his 1539 work on bloodletting). Some scholars have argued for the involvement of Titian himself, largely on the basis on the quality of the woodcuts, or (less compellingly) Domenico Campagnola and Jacopo Sansovino. Although we may never know for certain who was responsible for the images, it is clear that he – or more realistically, they – worked very closely with Vesalius at every point in the process. Indeed, it is probably more accurate to think of the visual aspect of *De Fabrica* as a vast collaborative project, for which Vesalius acted as the director and entrepreneur. It is likely that several artists produced the original drawings – in line with contemporary workshop practice, which often divided up the tasks of supplying the overall design, executing the principal images, and filling in the background – while credit is due also to the engravers, who transformed these drawings into the woodblocks from which the prints were made. Nor should we overlook the contribution of the pressmen at the shop of Joannes Oporinus in Basel, where Vesalius sent the blocks for printing. The text itself is much more obviously the product of Vesalius' private labors, but even in this case, he relied on judges and jailers for access to condemned criminals and their cadavers, as well as on his students, who were not above rifling local tombs.

The collaborative aspect of *De Fabrica* is often overlooked, both in deference to more recent ideals of individual authorship, textual and artistic, and because Vesalius clearly intended to emphasize his own achievement. The opening pages of the book make this abundantly clear. The elaborate title page shows Vesalius in the middle of a public dissection, surrounded by a large audience of students and other viewers.

Detail from the title page of *De Fabrica* depicts Vesalius performing a dissection.

It not only depicts a number of his pedagogical innovations – the fact that he performed his own dissections, the use of animal as well as human cadavers, the presence of an articulated skeleton to demonstrate the bones of the body – but it places the anatomist in a central and commanding position, underscoring his authority by the fact that of all the figures in the woodcut, only he engages the reader's gaze. This sense of mastery also pervades the individual portrait of the author that follows, showing him dissecting the muscles and tendons of the forearm and hand, as well as the preface to the work, in which he repeatedly stressed his own achievement – and significantly downplayed those of his immediate predecessors – in recalling the science of anatomy "from the dead."

Elsewhere, Vesalius discounted the influence of his instructors, presenting himself as largely self-taught in the art of dissection, and he described his extraordinary efforts to procure cadavers: stealing one in the dead of the night from a municipal gibbet and hiding it under his bed until he could study it, persuading a local judge to schedule executions to suit his own convenience, or opening the body of a freshly quartered criminal to extract the "still beating heart." This carefully cultivated image of daring and transgression pervades *De Fabrica*, from its gratuitous accounts of graverobbing to the woodcuts themselves, which dramatically emphasize the violence done to the dissected cadaver. The sequence of disturbingly dismantled mythological figures in Book II is a case in point, as is the choice of a female cadaver for the title page, evoking images of violation and rape. In all these ways, Vesalius represented himself as a remarkable figure, not bound by the usual conventions of propriety and morality, but manifesting a higher and individualistic form of manliness, like the *virtù* of Machiavelli's *Prince*.

Published in August 1543 and dedicated to the Hapsburg emperor, Charles V, *De Fabrica* immediately attained one of its principal goals: the appointment of its author as physician at the imperial court. Like Galileo a half-century later, Vesalius saw the court rather than the university as the height of professional achievement (as well as the most lucrative place to practice), and he immediately assumed his new position, which he occupied for the next twelve years. He continued to write and publish, though at a much slower pace than the fevered period between 1538 and 1543. *De Fabrica* received a mixed reception when it first appeared; strict Galenists deplored its attacks on their master, while other anatomists, particularly in Italy, praised it as an important contribution – the reaction that was ultimately to carry the day. In between treating ambassadors, court officials, and members of the imperial family, Vesalius found time to issue several spirited responses to his critics and to bring out a second, revised edition of *De Fabrica* in 1555. His book exerted a broad influence, inside and

outside the specialized field of anatomy, circulating both in the two authorized editions and in numerous pirated versions of images and text.

In the years after 1543, while Vesalius' attention was largely elsewhere, other anatomists continued their exploration of the human body. They revised his findings and added structures that he had overlooked. In the next century, the Englishman William Harvey, who also studied at Padua, took the first steps toward transforming Galenic physiology on the basis of the new anatomical findings, proposing the circulation of the blood. Thus *De Fabrica* remains the product of a particular moment – when the committed Galenism of the most progressive medical writers stood in perceived tension with some of the results of their own anatomical researches, but the basic tenets of Galenic physiology still seemed unassailable (except to the radical Paracelsus). As a fusion of the most advanced art and science of its period, however, it has a definitive character. Leonardo's drawings remained unpublished, and although other anatomists envisaged collaborations with other accomplished artists – among them Michelangelo – none bore similar fruit.

Katharine Park

Bibliographic Note The classic treatment of Vesalius and his work is Charles D. O'Malley, *Andreas Vesalius of Brussels, 1514-1564* (Berkeley: University of California Press, 1964), which includes an appendix of translations of a number of key sections of *De Fabrica* and exhaustive references to the older literature. An abbreviated discussion, with reproductions of the woodcuts of *De Fabrica, Epitome,* and *Tabulae Sex,* together with translations of their captions and commentary, appears in J.B. de C.M. Saunders and Charles D. O'Malley, *The Illustrations from the Works of Andreas Vesalius of Brussels* (New York: Dover, 1973). The most up-to-date general study of Renaissance anatomy is Andrea Carlino, *La fabbrica del corpo: Libri e dissezione nel Rinascimento* (Turin: Einaudi, 1994), forthcoming in English translation from University of Chicago Press. For material related to *De Fabrica*'s illustrations, see Bernard Schultz, *Art and Anatomy in Renaissance Italy* (Ann Arbor MI: UMI Research Press, 1985); Martin Kemp, "A Drawing for the Fabrica and Some Thoughts upon the Vesalius Muscle-Men," *Medical History* 14 (1970): 277-88; and David Rosand and Michelangelo Muraro, *Titian and the Venetian Woodcut* (Washington DC: International Exhibitions Foundation, 1976), esp. Section VI. For more on the place of anatomy and human dissection in the religious and cultural life of the period, see Katharine Park, "The Criminal and the Saintly Body: Autopsy and Dissection in Renaissance Italy," *The Renaissance Quarterly* 47 (1994): 1-33; Katharine Park, "The Life of the Corpse: Division and Dissection in Late Medieval Europe," *Journal of the History of Medicine and Allied Sciences* 50 (1995): 111-32; Giovanna Ferrari, "Public Anatomy Lessons and the Carnival: The Anatomy Theatre at Bologna," *Past and Present* 117 (1987): 263-87; and Jonathan Sawday, *The Body Emblazoned: Dissection and the Human Body in Renaissance Culture* (London: Routledge, 1995).

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De Fabrica Binding

The binding of *De Humani Corporis Fabrica* is a seventeenth-century binding of marbled brown calfskin over pasteboard measuring 16 1/8 x 11 3/8 inches (409 x 289 mm). The front and back boards are plain, having no decoration. The spine, which has been rebacked, is divided into eight panels by bands. The title is gilt on a red leather label on the second panel, with double gold rules on the outer edges of the label. Other panels have double gold rules with a diamond decoration in the center of each panel. The textblock has red sprinkled edges.

Click here to see binding

Collation: 2^0: *^{6} A-Z^6, a-l^6 m^6 (m2+c^2+1) n-o^6 p^4 (p3+2c^2) q-z^6, 2A-2L^6 2M^8 [$4 (-K4, -O4, -Q4, +2M5) signed], 359 leaves, pp. *[12]* 1-312, ^{2}213-^{2}312, [*6*], 315-352, [353], 354, [*2*], 355-391, 492-661 [662-664], [*36*]; [misnumbering 24 as 4, 140 as 148, 148 as 150, 177 as 179, 235 as 237, 262 as 462, 268 as 266, 273 as 175, 297-8 as 287-8, 332 as 232, 388 as 396, 513 as 511, 662-3 as 658-9; p 169 unnumbered].

Contents: *1^a: woodcut title. *1^b: blank. *2^a-*4^b: preface. *5^{a-b}: letter to the reader. *6^a: blank. *6^b: portrait of Vesalius. A1^a-O6^b: Liber Primus. P1^a-g4^b: Liber Secundus. g5^a-m3^b: Liber Tertius. m4^a-2c2b: Liber Quartus. p4^a-2A3^b: Liber Quintus. 2A4^a-2E2^b: Liber Sextus. 2E3^a-2K2^a: Liber Septimus. 2K2^b: errata. 2K3^a-2M7^b: index. 2M8^a: colophon. 2M8^b: tailpiece.

Provenance

The large armorial bookplate with twenty-four quarterings was engraved for John Cecil, fifth Earl of Exeter and sixth Baron Burghley. He died near Paris in the summer of 1700 at the age of about fifty-two "of a surfeit of fruit." *Cor unum, Via*

The bookplate of John Cecil.

una (One heart, one way) is the family motto. The fifth Earl was the later of two notable Cecil book collectors. The father of the first Earl, the Elizabethan statesman William Cecil, first Baron Burghley (1521-98), gathered an extensive library with some important manuscripts. It survived largely intact in the younger branch of the Cecil family until the greater portion (with the seventeenth-century additions) was sold at auction in 1687 in some 4,000 lots.

The fifth Earl's copy of Vesalius remained in the family library until 1959 when the then Marquess of Exeter sold some of the finer volumes in the collection ("removed from Burghley House, Stamford, Lincolnshire") at Christie's (London) on July 15. The Exeter copy (lot 122) was waterstained, the title page was repaired, and it lacked the portrait; not altogether surprisingly, it failed to reach its reserve and was brought in by the auctioneer – though it nominally sold to "Birkenhead" for £480.

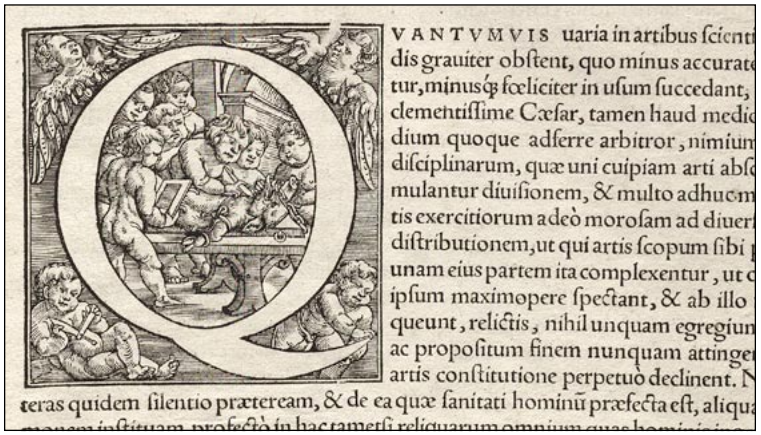
The book must, however, have attracted the attention of someone with a genuine (if unusual) Vesalius portrait. Michael Horowitz and Jack Collins distinguish between a "regular" 1543 edition of *De Fabrica*, in which the portrait bears the name of Vesalius above in 12-point Basel italic, and a much rarer "variant" issue of the book, in which his name is printed in 10-point French italic and the portrait woodblock is slightly damaged, with a small chip in the extreme left corner of the upper edge. The impression now in the Essex copy includes the "regular" italic type but shows clear signs of incipient chipping of the woodblock and thus apparently represents an unrecorded intermediate state between "regular" and "variant" – or to the skeptic, between 1543 and 1555, for the type of portrait in Horowitz and Collins' 1543 "variant" appears to be identical to the version issued in the 1555 second edition.

The owner of the portrait must have had the Exeter copy taken apart, washed to remove the waterstains (with some inevitable fading of the contemporary marginal annotations), the sheets resewn, the missing portrait inserted, and the whole renovated assemblage reinserted into its (now repaired) binding.

Historiated Initials

Historiated initials (so called because they tell a story) were some of the many elements of medieval manuscript practice adopted by the early printers of the Renaissance. The standard bibliographical hierarchies (title, contents, chapters, index) that we now take for granted in books were slow to develop and achieve codification. Even today, the presence of an index in a book is a matter of national taste. Some of the earliest printed books contained no title pages. Even when such preliminaries became customary, printers made no attempt to indicate relative importance of texts by means of type size. Nor did they distinguish key words in a title – the significant nouns may be dwarfed by mere prepositions. The title page of this edition of *De Fabrica* is an excellent example of standard sixteenth-century practice: the actual title is typographically almost an afterthought.

Historiated initials were essential elements in any hierarchical arrangement. Apart from their decorative aspects, they were an effective means of indicating paragraphs and chapter divisions. Many of the earliest printed books were in fact issued without initial capitals: these were to be supplied, often in red ink, by a scribe, and there was, of course, space for more elaborate historiated treatment of the initial letter if desired. Individual variation is one of the virtues of work by hand, standardization one of the vices of the machine. When printers began to outfit themselves with suites of decorative initials in order to dispense with the costly and unpredictable efforts of the individual scribe or illuminator, inevitably their choice fell upon fac-


VANTVMVIS uaria in artibus ſcienti
dis grauiter obſtent, quo minus accurate
tur, minuſq; fœliciter in uſum ſuccedant,
clementiſſime Cæſar, tamen haud medio
dium quoque adferre arbitror, nimiun
diſciplinarum, quæ uni cuipiam arti abſo
mulantur diuiſionem, & multo adhuc m
tis exercitiorum adeò moroſam ad diuer
diſtributionem, ut qui artis ſcopum ſibi
unam eius partem ita complexentur, ut c
ipſum maximopere ſpectant, & ab illo
queunt, relictis, nihil unquam egregiun
ac propoſitum finem nunquam attinge
artis conſtitutione perpetuò declinent. N
teras quidem ſilentio præteream, & de ea quæ ſanitati hominū præfecta eſt, aliqua

Historiated initial Q from the preface.

totum types that might be useful in many circumstances. Due regard was nonetheless paid to the requirements of the text: a printer might have one set of historiated initials suitable for classical texts and another for ecclesiastical publications. But only in the case of a book that was almost self-consciously intended as an illustrated masterwork or display piece would author and printer go to the trouble and expense of supplying specially cut initial letters. Such a book was Vesalius' *De Fabrica*. The full-page plates of skeletons and flayed men in landscape settings are like the stained glass in churches; the historiated initials, with their putti busily engaged in minor tasks of medicine, more nearly resemble the rustic or low-life scenes on the misericords carved in wood under the choir seat. Although the initials – depicting a throng of jolly cherubs, happily cleaning bones in the river, or off on a noisy foray to the graveyard or gibbet – certainly provide a touch of macabre humor to a serious text, the incongruity is only apparent. The cherub served as a maid-of-all-work in the Renaissance. His Vesalian activities belong merely to the medical side of a life more often devoted to

the religious calendar or the daily or annual tasks of agricultural life, plowing, harvesting, herding, slaughtering, or washing clothes in the stream.

Four large historiated initials (7.5 cm square) and seventeen smaller ones (3.25 cm square) were specially cut for this, the 1543 edition of *De Fabrica*. (There is also a duplicate L, used only once, in Book Two, Chapter LI, copied from Holbein.) The large initials (I, O, Q, and T) were used to head the books, and the smaller initials (A, C, D, E, F, H, I, L, M, N, O, P, Q, R, S, T, and V) introduced the chapters. For the second edition in 1555, a fifth large initial (V) was added, and the smaller initials recut in larger size to match that edition's larger type.

The list that follows, identifying the medical, surgical, and obstetric activities of the cherubs, is drawn chiefly from Samuel W. Lambert's essay on the initials in *Three Vesalian Essays* (New York: Macmillan, 1952). Occasional variant readings are given by Charles Metzger in *Hippocrate* 3 (1935): 825-34; Klaus Rosenkranz in *Sudhoffe Archiv für Geschichte der Medizin* 30 (1937): 35-46; Richard Schmutzer in *Sudhoffe Archiv für Geschichte der Medizin* 31 (1938): 328-30; Barry J. Anson in *Surgery, Gynaecology and Obstetrics* 89 (1949): 97-120 (especially 111-16); and L. H. Wells in *Medical History* 6 (1962): 286-88.

Large initials:

I depicts graverobbing, with two of the cherubs dressed as soldiers

O depicts cherubs boiling bones in a cauldron

Q depicts cherubs dissecting a pig

T depicts cherubs suspending a dead dog by the legs

Small initials:

A depicts cherubs easing retention of urine with a catheter

C depicts the cleaning of bones for study or display in a perforated box placed in a stream

D depicts cherubs at work on a skull

E and **F** depict a *glossocomum* or fracture-box being used to set a fracture of the tibia and fibula

H shows cauterization of the scalp, although some consider it a depiction of the trephining of the skull

I appears to depict the tapping (or paracentesis) of an old man so as to remove fluid from the abdomen

L depicts a corpse being lowered from the gallows; the duplicate L (used only once) shows a scene of defecation

M depicts cherubs playing on a primitive bagpipe made from a stomach

N shows the transport of a corpse on a stretcher

O depicts an execution, with decapitated head

P depicts three cherubs setting up an articulated skeleton

Q shows the caesarian section or pelvic dissection of a dog

R shows the dissection of the head of an ox

S depicts cherubs bleeding a decapitated dog in a bowl, while others study a book

T depicts cherubs hanging a dog

V shows venesection or bloodletting from the arm

Not included in the list above is a third series of still smaller and less accomplished initial letters (roughly 1.8 cm. square), used exclusively in the index. These were undoubtedly part of the printer's general stock and not specially cut for *De Fabrica*. A few depict fabulous animals. Where cherubs appear, they are engaged in such unmedical activities as would be suitable to a wide range of publications: stirring pots and playing lutes or violas.

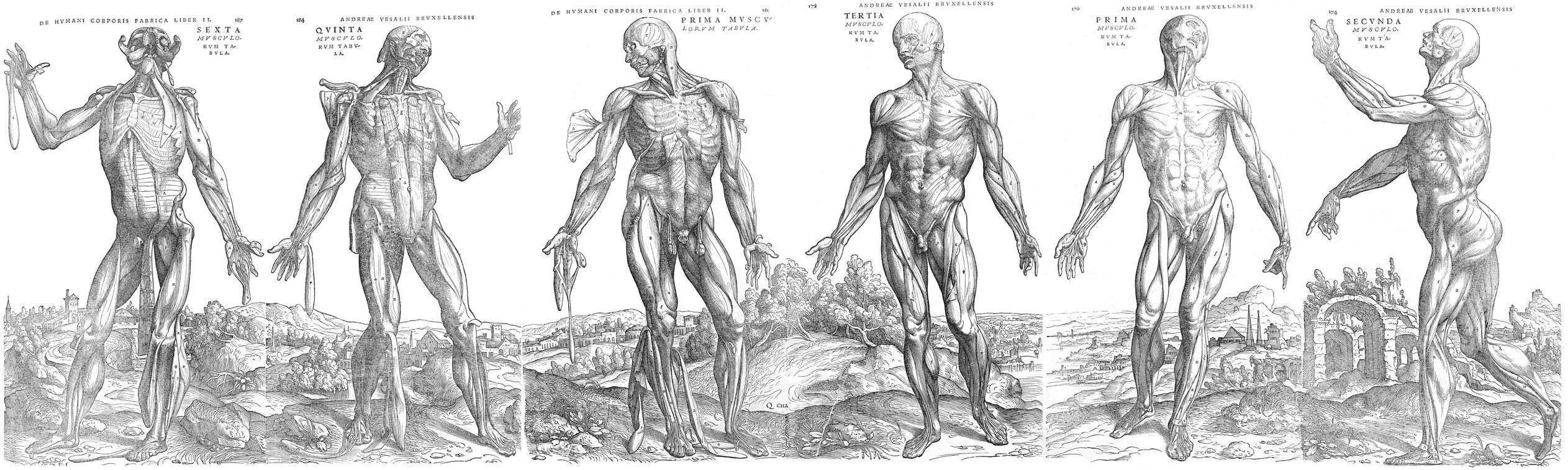
Andreas Vesalius. *De Humani Corporis Fabrica.* Basel, 1543. THE WARNOCK LIBRARY

octob.

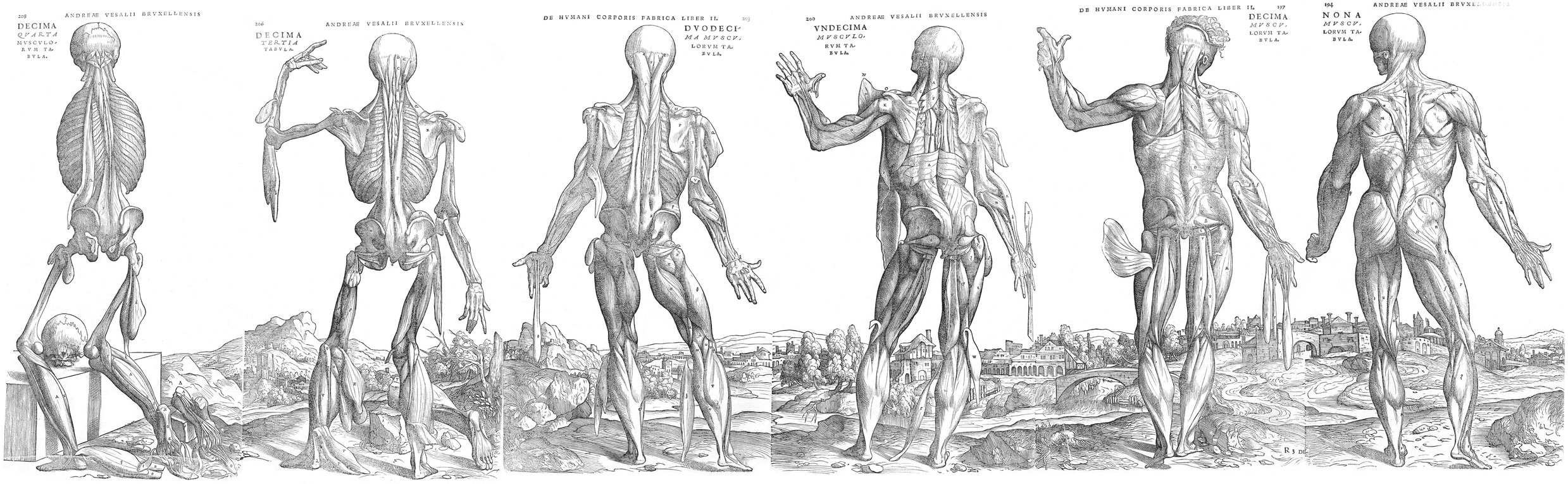
Andreae Vesalii Bruxellensis tumulus qui obiit [illegible] M.D.lxiv.
aetatis suae Lviii. cum Jerosolymis rediisset —

Vesalii cineres venerandaque gentibus ossa
Quisquis remotâ conspexeris insulâ
Quâ jacet incultis remotus Zacynthios arenis
Gratum Viator et laborem sistito:
Naturae hic genium, finemque extremaque rerum
Vidisse credens; caetera ipsius labor.

BASILEAE.



Andreas Vesalius. *De Humani Corporis Fabrica.* Basel, 1543. THE WARNOCK LIBRARY


208 ANDREAE VESALII BRVXELLENSIS
DECIMA
QVARTA
MVSCVLO-
RVM TA-
BVLA.
206 ANDREAE VESALII BRVXELLENSIS
DECIMA
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TABVLA.
DE HVMANI CORPORIS FABRICA LIBER II. 203
DVODECI-
MA MVSCV-
LORVM TA-
BVLA.
200 ANDREAE VESALII BRVXELLENSIS
VNDECIMA
MVSCVLO-
RVM TA-
BVLA.
DE HVMANI CORPORIS FABRICA LIBER II. 197
DECIMA
MVSCV-
LORVM TA-
BVLA.
194 ANDREAE VESALII BRVXELLENSIS
NONA
MVSCV-
LORVM TA-
BVLA.